

Appln. No.: 10/531,893
Amendment Dated: September 19, 2006
Reply to Office Action of: June 23, 2006

MAT-8686US

Amendments to the Drawings:

The attached sheets of drawings include changes to Figures 1, 4, 5A and 5B. These sheets replace the original sheets.

Attachments

Remarks/Arguments:

The drawings were objected to. Corrected drawings are enclosed. Withdrawal of the objection is respectfully requested.

The title was found to be non-descriptive. A new title is being furnished.

Claims 1-17 have been rejected under 35 U.S.C. §103(a) as being obvious over Hirota (U.S. 2004/0188426). It is respectfully submitted, however, that these claims are patentable over Hirota for the reasons set forth below.

As shown in Fig. 5A and 5B of Hirota, source current is measured for a predetermined amount of time. In the example shown in Hirota's figures, the source current is measured for 0.1 seconds. As set forth in paragraph [0039], a "change of an inclination" during a 0.1 second interval indicates that the power needs to be lowered (because the object to be heated has been displaced).

Applicants' invention, as recited by claim 1, includes a feature which is neither disclosed nor suggested by the art of record, namely:

... a high frequency power source supplying a current to the heating coil ...

... a controller operable to signal the high frequency power source to change output of said high frequency power source if said period of time exceeds a predetermined amount of time ...

Applicants' claim 1 defines the "period of time" to be a time from when the heating output "drops to a first level ... to a time the heating output increases to a second level." This feature is supported by the originally filed application at page 8, lines 9-12 and in Applicants' Figure 2.

Thus, in accordance with an exemplary embodiment of the present invention, Applicants measure the period of time between A) the heating output dropping to a first level; and B) the heating output increasing to a second level. If the amount of time between the "drop" and the "increase" is greater than a predetermined amount of time, then Applicants signal the high frequency power source to change output.

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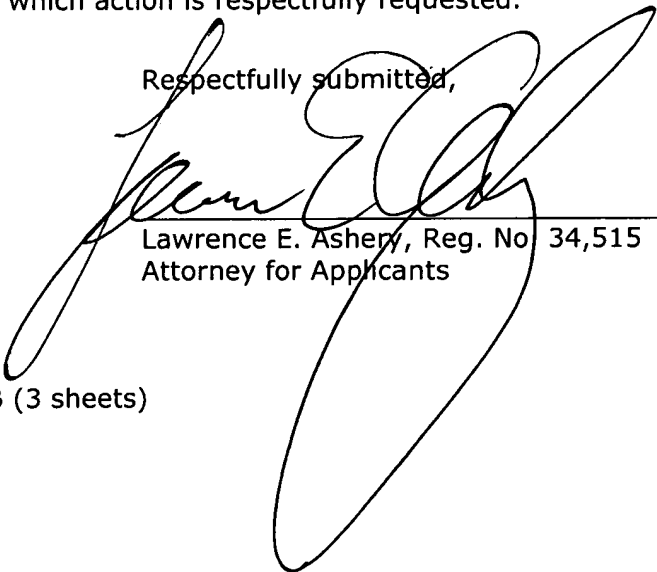
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Thus, Applicants' claimed feature is different than Hirota's method of determining whether inclination has changed during a 0.1 second interval. It is because Applicants' measure the amount of time between "drop" and "increase" of heating output that Applicants can respond to a load being lifted from their induction heater. As this feature is neither disclosed nor suggested by the art of record, Applicants' claim 1 is patentable over the art of record.

Claims 2-17 include the features of claim 1 from which they depend. Thus, claims 2-17 are also patentable over the art of record.

In view of the amendments and arguments set forth above, the above-identified application is in condition for allowance which action is respectfully requested.

Respectfully submitted,


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Attachments: Figures 1, 4, 5A and 5B (3 sheets)


Dated: September 19, 2006

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September 19, 2006

Deborah Spratt 

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